

# BUSINESS CONTINUITY

## Gremlins in the System!

### 🎯 PRESENTERS

Joe McFadden : Royal Opera House

Andrew Montague : Royal Opera House

James Broderick : National Theatre

Mark Steel : Tessitura Network

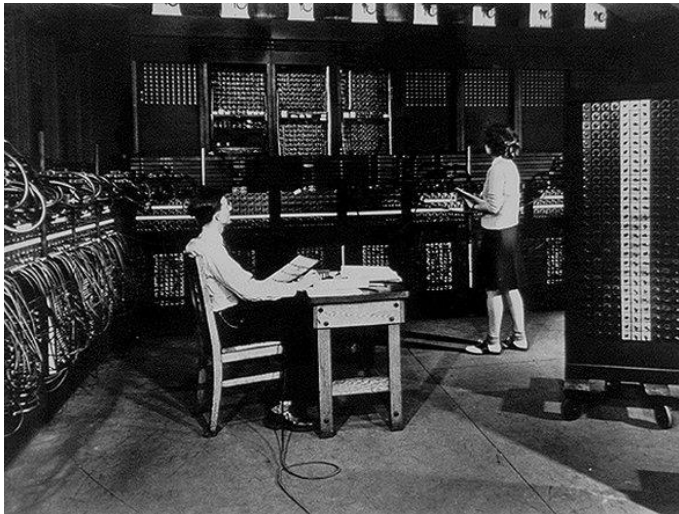
### 🎯 CONTENT PLANNER

Sarah Stratton : Glyndebourne

# Disaster Recovery Planning



# Old vs New



# Disaster Recovery Planning

## The Old...

- Servers on-site
  - Limitations with Server/Comms room
    - 1990's
    - IT footprint was much smaller
    - Prone to water leaks (catering kitchen above)
    - Prone to overheating (Air-conditioning not sufficient)
    - Servers physically accessible by ROH Staff

# Disaster Recovery Planning 2

And the new...

- Renting rack space in Data Centre.
- Bought/provisioned own servers
- 2 separate Data Centres to provide failover
- Dedicated Lease line – 400Mb/s
  
- Benefits:
  - Secure
  - Failover
  - Recovery
  - Proper Air conditioning

# DR Testing of New Infrastructure

- Two different sets of scenarios
  1. Off site Failures
  2. On site Failures
    - Off Site Failures Tests
      1. Local network failure
      2. Telephone failure (box office relevant)
      3. Primary/secondary link to DC1 Failure
      4. Complete loss of Network connectivity
      5. Loss of both Datacentres
      6. Loss of Servers in DC1 - Failover to DC2

# DR Testing of New Infrastructure

- On Site Failure Tests
  - Loss of Access to Covent Garden Site
- With Previous Infrastructure, we had to:
  - Install servers from scratch
  - Restore Data from tape backups
  - Install Applications

# This took time!!



- Total time to recovery?
- 4.5 hours!!!

# New DR Infrastructure

- Off site DR centre
  - Provides 40 desks
  - prebuilt computer image from our organisation
  - phones
  - Internet connection

# Access to Applications

- Remote applications
  - Key departments able to continue working
  - Easy and secure access
  - Speed no issue
  - Full application (no lite versions)
- Downtime?
  - Less than 1 hour!!

# DR Improvements

- Wrap up
- Questions?

**National  
Theatre**

# Business Continuity Planning

6<sup>th</sup> November 2015

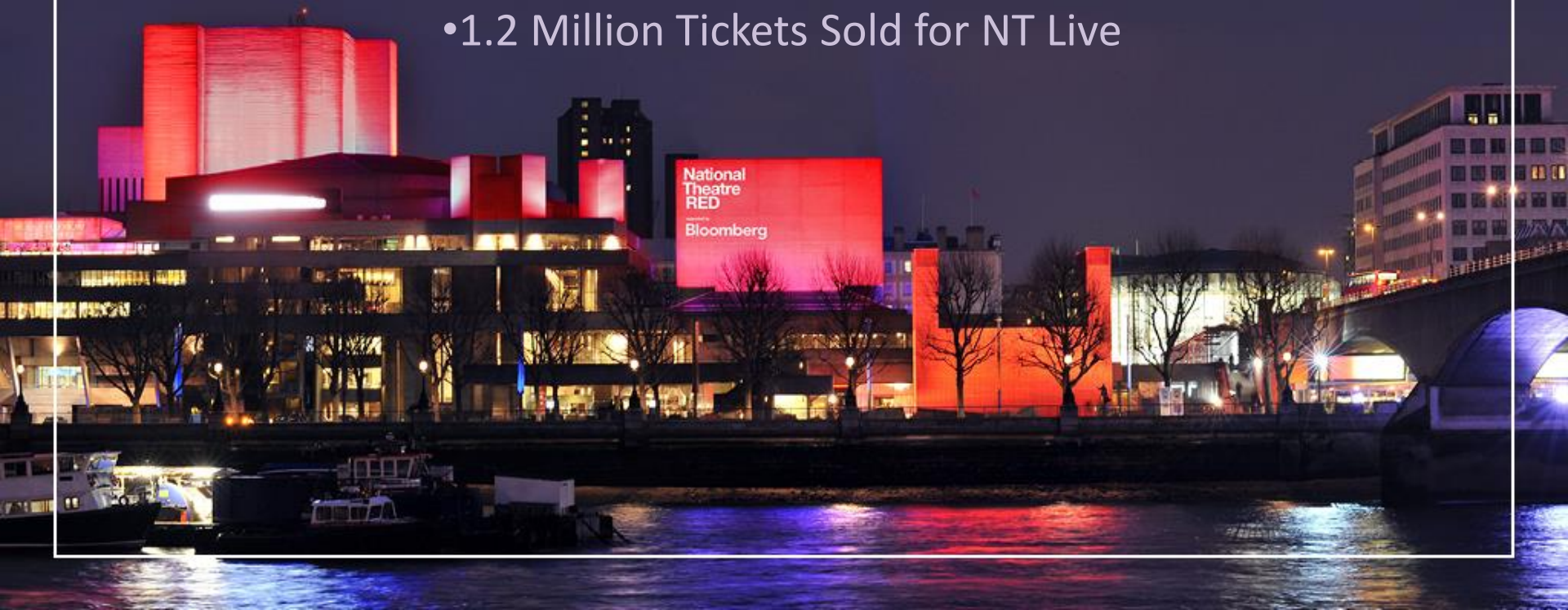
James Broderick  
Box Office & CRM Systems Manager



# National Theatre

## Financial Year 14/15

- 4 Auditoria / 2300 People Per Night
- 24 Productions
- 987 Performances
- 700,000 Tickets / 90% Capacity
- 710,000 Tickets Sold In The West End
- 720,000 Tickets Sold for UK Touring Shows
- 775,000 Tickets Sold for International Touring Events
- 1.2 Million Tickets Sold for NT Live



## **BCP - What we do**

- *Seating Book* Report - Tessitura
- *House Map* Report - Tessitura
- Staff Telephone Tree
- Outward Communication
- Outsourcing Telephone Operations



## BCP Measure – Daily Reports Performance Seating Book Report

### National Theatre

#### Performance Seating Book

Date: 29/09/2015 08:36 AM

Page: 1 of 8

jbroderi

Mode: By Season(s)

Season(s): Olivier 1415, Olivier 1516

Production(s): (All)

Perf St Date: 2015-09-29

Perf End Date: 2015-09-29

Performance: (None)

Order St Date:

Order End Date:

Unpays: Include Unpays

List: (None)

General Public: Include Gen Pub

*Our Country's Good*

*OUR150929E*

*Tue 29 Sep 2015 07:30pm*

Cust No	Customer Name	Phone No	Order No	Seat #	Location	Status
0	(General Public)		15982502	1	Olivier Stalls:L:31	Ticketed
				4	Olivier Stalls:H:33-36	Ticketed
				2	Olivier Circle:C:59/60	Ticketed
				1	Olivier Circle:C:54	Ticketed
				1	Olivier Stalls:D:22	Reserved Unp:
				5	Olivier Circle:E:22-26	Reserved Paid
				1	Olivier Stalls:D:5	Ticketed
				1	Olivier Stalls:B:14	Reserved Paid
				3	Olivier Stalls:C:22-24	Reserved Paid
				4	Olivier Stalls:H:18-21	Ticketed

## Seating Book Small - Parameters



View parameters for RNT Seating Book Small

Report Mode ..... (Required)	By Season(s)	OK
Season(s) ..... (Optional)	(2 values selected)	Cancel
Production(s) ..... (Disabled)		Next
Perf Start Date ..... (Optional)	RunDate	Previous
Perf End Date ..... (Optional)	RunDate	Clear
Perf Season ..... (Disabled)	(None)	Report Help
Performance ..... (Disabled)	(None)	
Order Start Date ..... (Optional)		
Order End Date ..... (Optional)		
Mode ..... (Required)	Include Unpaid	
List ..... (Optional)	(None)	
Include General Public ..... (Required)	Include Gen Pub	

Schedule Report

Follow the steps below to define the schedule:

**Step 1: Name and secure the Schedule:**  
DR Olivier Seating Book PM National Theatre

**Step 2: Schedule Type:** Which type of schedule would you like to set up?  
 One time  Hourly  Daily  Weekly  
 Monthly by day of week  Monthly by date  
Examples: Every day at 4:00 PM, effective 10/05/1999 through 12/10/2003.  
Every 2 days at 9:00 AM, effective 10/02/2003.

**Step 3: Frequency:** How often would you like the report to be run?  
Every: 1 day(s) at: 05:00 PM

**Step 4: Effective Period:** When would you like the schedule to be effective?  
Effective: 24/07/2014 through: 23/08/2099

**Step 5: Verify:** Push the Test button to verify the schedule.  
Schedule:  
First Run:

Output Option: Email-PDF

Email   
Test

## Seating Book Small - Schedule



## House Map Report

### House Map Report

jbroderi 27/09/2015 11:56 PM  
Page 1 of 4

— Parameters —

Season: Olivier 1516  
Perf Dates: 2015-09-28 - 2015-09-29

Show Upgrades: No  
Show Holds: Yes

Seat Map for Performance: OUR150928E Our Country's Good Mon 28/09/2015 7:30 PM

#### OLIVIER STALLS

```

RWUWU* *****+ +R      R+ *****+R
PwwwTTTTTTTTTT**+P      P+**+++++++P
O***AAAAAAAAA**+O      O+++*ssssssss++++O
M*****+*          M+*****+M      M+++++++GGGGGGGM      **+++++++M
L*****          L+++++++L      L+++++*+++++++L      **AAAAAAL
K+++++++*          K+*****+K      K+++++++K      **TTTTTTTK
J+++++++*          J+*****+J      Jqqqq+*****+J      **+++++++J
H+++++++          H+++++++H      H+++++++h+h+h++H      **+++++*H
G*****+          G+++++++MMMMG      Gh+++++++G      +*+++++G
F+*****          F+++++++F      F+*****+F      ++++vv++F
E+++++++          E+++++h+++++E      E+++++++E      +++++*E
D+*****          D+++++++D      D+++++++D      ++++++D
UU      CXXXX      C+++++++C      XXXXC      UU
UU      BXXXX      B+++++++B      XXXXB      UU
          UU      A+++++++A      UU
    
```

## House Map Report - Parameters

View parameters for House Map Print

Season .....	(Required)	<input type="text" value="Olivier 1516"/>	<input type="button" value="OK"/>
Mode .....	(Required)	<input type="text" value="Date"/>	<input type="button" value="Cancel"/>
Performance Start Date .....	(Required)	<input type="text" value="DayRunDate +1"/>	<input type="button" value="Next"/>
Performance End Date .....	(Required)	<input type="text" value="DayRunDate +2"/>	<input type="button" value="Previous"/>
Perf code .....	(Disabled)	<input type="text"/>	<input type="button" value="Clear"/>
Pkg code .....	(Disabled)	<input type="text"/>	<input type="button" value="Report Help"/>
Display Upgrades? .....	(Required)	<input type="text" value="No"/>	
Show Hold Codes .....	(Required)	<input type="text" value="Yes"/>	

### **House Map & Seating Book Reports sent daily (Automated):**

- Internal management Email address and External (gmail) email address in the event of multiple internal systems failure.

### **Seating Book Report to FOH & Box Office:**

- Enables all Operational teams to check which customers have booked tickets, but are unable to have their tickets printed at the Box Office using the colour coding.
- Highlights **Printed**, **Paid** and **Reserved (Unpaid)**.
- Staff prior to the show/s can use the phone number logged to contact customers.
- Those without an email address can be prioritised for telecommunications.

### **House Map Report to FOH & Box office:**

- Visually able to see where they have available seats (\*), seats that are sold (+) and any holds put in place which may be for the company or highlight allocations.
- Box Office can see how many seats may be available for sale on the day

## **Considerations**

- **How regularly you run reports**

The more frequently, the more up to date your data is.  
Ensure all users are working from the same version.

- **Capacity, Resources & Location**

How useful and how you approach the situation should and will depend on how many people are entering your building. Are they entering from multiple places? If so, whereabouts from? Staff Available?

- **Who you entrust with the information**

The seating book holds personal data and so to be as PCI compliant as is manageable. It is worth considering what, who and where this data is made available.



- **Social Media Accounts:** Update (Facebook /Twitter)
- **Website:** Space made available on the home page for bespoke text for relevant information/instructions.
- **Email:** All customers attending on the day of the performance with information and relevant instructions.
- **Telephone Messaging:** To advise customers looking to book tickets or to give further information with clear direction when calling us.
- **Outbound Telecommunications:** Customers attending that day.

## Outsource Telephone Operations Find a Support Partner!

### National Theatre, London

- NT Studios: Capacity to house a reduced Box Office Telephone Operation. Continue our Telesales Operation and a service is maintained whilst issues are resolved.
- Southbank Centre (next door), where there is a plan to make an agreement, that should any disruption look to affect us for a sustained period they could handle calls on behalf of the National Theatre.

### Curve, Leicester

- Leicester Creative Business (LCB Depot):  
A Leicestershire based set of offices opposite the venue.
- Highcross Shopping Centre Kiosk:  
Remote Secure Internet line and landline phone installed.  
Enabled an extra service during busy periods, as well as a place for call redirection in the event of phone system failure.  
Remote link to Tessitura to continue a reduced booking service and able to access internal emails outside of the venue.
- Visit Leicester (Leicester City Council):  
Sell through the API and able to sell tickets for all Curve shows.

**National  
Theatre**

**Thank you**

James Broderick

Box Office & CRM Systems Manager

[jbroderick@nationaltheatre.org.uk](mailto:jbroderick@nationaltheatre.org.uk)

---

**Upper Ground,  
London  
SE1 9PX**



# Jessitura network



# Business Continuity

- A ‘superset’ of Disaster Recovery; keeps the business running during a disaster
- Can cover areas that are not considered a ‘disaster’
- Focused on business processes and customer service
- Often a strategic-level initiative but can be done tactically as well



# Business Continuity: Practical Considerations – Tactical

- Our products ‘expire’ - we want to sell up until the last minute
- Customer service is key to success; the customer needs to be able to experience what we provide, even if there is a problem with the system
- Business Continuity can be done in small steps, even without organizational buy-in



# Possible Scenarios

- Internet Outage
- Credit Card Processor Outage
- Loss of Power
- Network Down
- Server Issues (database)
- Others? Issues you have faced?



# PREPARATION



**KEEP  
CALM  
AND  
BE**

**PREPARED**



# Business Continuity Preparation – Internet Outage

- Important for RAMP clients
- Credit Card processing via internet
- Work with IT for organization-wide internet redundancy
- Portable hotspot for RAMP clients



# Business Continuity Preparation – Credit Card Processor

- Alternate credit card processing methods (phone, etc.)
- System to record credit card information and process later (PCI considerations)



# Business Continuity Preparation – Power Outage

- IT is normally responsible for power to network and servers
- Local UPS for critical systems such as windows, admissions desk, etc.
- Do not power up printers (BOCA?)
- Test local UPS power frequently and watch what is plugged in (no space heaters please!)
- Tessitura Roving Box Office (TRBO) may be a good backup system for a power outage



# Business Continuity Planning – Network Down

- When the internal network is down, but the internet is not
- Use Tessitura On the Go for SSRS reports and basic constituent information
- Selling on the website
- BYOD (Bring Your Own Device) may help - please check with your IT department



# Business Continuity Planning – Reports

- Access to sales and availability information is vital
- Run scheduled reports and email them to an account that will be available during an outage
- Consider an email account specifically for Business Continuity reports
- For event-based organizations, schedule reports to run 12 hours prior to the performance time and again 2 hours prior to the performance time
- For admissions, run hourly reports throughout the day



# Business Continuity Planning - Reports

- **Standard Reports**
  - Performance Seating Book
  - Single Sales Order Listing
  - House Map Print
  - Hold Code Report
  - Performance Base Price and Availability Report
  - Order Confirmations
  - Membership Details Report
- **Custom Reports that might be useful during an outage**



# Business Continuity Planning – Access Control

- Running N-Scan offline
- Education event reports
  - Customer Service Issue Tracking
- Development/Elevated Events reports
  - Event Listing Report
- Front of House reports
  - House Map Print
  - Customer Service Issue Tracking



# Post – General

## General Considerations

- Give everyone time to catch up
- Do an internal audit of the time down.

Ask yourself:

- What went well?
- What could have gone better?
- What puzzles/questions do you have?

*\*Suggestion - try and keep the conversation about the process, and not about the system being down.*



# Post – Ticket Office

How does the Ticket Office ensure the data is entered back into the system?

- Sales
  - Manual entry
    - Checks and balances
  - Partial entry
    - Matching sales up with processor entries
    - Run invoice billing



# Post – Ticket Office

How does the Ticket Office ensure the data is entered back into the system?

- Performance
  - Running and comparing any end-of-show reports



# Post - Admissions

How does Admissions reconcile the activity while offline?

- Sales
  - If you are looking at a large number of sales or new patron information, consider the **Constituent Import** and **Order Import** utilities
  - Run any **Pledge Billing** or **Order Billing**



# Post – Front of House

How does Front of House reconcile the activity while offline?

- Admissions
  - Put N-Scan into online mode
  - Manually enter any tickets that weren't able to be scanned

# Jessitura



**EUROPEAN  
CONFERENCE 2015**

**5 & 6 NOVEMBER  
NOTTINGHAM**

## QUESTIONS?

- Please tell us who you are and where you are from.....

# Jessitura



**EUROPEAN  
CONFERENCE 2015**

**5 & 6 NOVEMBER  
NOTTINGHAM**

## WHAT'S NEXT?

- **Venue Tour starts at 6.05pm – meet in the Royal Concert Hall foyer**
- **Content Planning Committee meet up is 7 – 7.30pm in RED at the Crowne Plaza Hotel**
- **Evening Networking welcome drinks served from 7.30pm and food served at 7.45pm – don't forget your dancing shoes!**